

CLAIMS:

1. An isolated nucleic acid molecule comprising a nucleotide sequence encoding ELF5 wherein said ELF5 comprises an Ets domain.
2. An isolated nucleic acid molecule or derivative, homologue or analogue thereof comprising a nucleotide sequence encoding, or a nucleotide sequence complementary to a nucleotide sequence encoding, an amino acid sequence substantially as set forth in <400>2 or a derivative homologue or mimetic thereof or having at least about 45% or greater similarity to at least 10 contiguous amino acids in <400>2.
3. An isolated nucleic acid molecule or derivative, homologue or analogue thereof comprising a nucleotide sequence substantially as set forth in <400>1 or a derivative or homologue thereof capable of hybridising to <400>1 under low stringency conditions.
4. An isolated nucleic acid molecule according to claim 3 which further encodes an amino acid sequence substantially as set forth in <400>2 or a sequence having at least about 45% similarity to at least 10 contiguous amino acids in <400>2.
5. An isolated nucleic acid molecule according to claim 2 or 3 substantially as set forth in <400>1.
6. An isolated nucleic acid molecule or derivative, homologue or analogue thereof comprising a nucleotide sequence encoding, or a nucleotide sequence complementary to a nucleotide sequence encoding, an amino acid sequence substantially as set forth in <400>4 or a derivative, homologue or mimetic thereof or having at least about 45% or greater similarity to at least 10 contiguous amino acids in <400>4.
7. An isolated nucleic acid molecule or derivative, homologue or analogue thereof comprising a nucleotide sequence substantially as set forth in <400>3 or a derivative or homologue thereof capable of hybridising to <400>3 under low stringency conditions.

8. An isolated nucleic acid molecule according to claim 7 which further encodes an amino acid sequence substantially as set forth in <400>4 or a sequence having at least about 45% similarity to at least 10 contiguous amino acids in <400>4.

9. An isolated nucleic acid molecule according to claim 6 or 7 substantially as set forth in <400>3.

10. An isolated nucleic acid molecule or derivative, homologue or analogue thereof comprising a nucleotide sequence encoding, or a nucleotide sequence complementary to a nucleotide sequence encoding, an amino acid sequence substantially as set forth in <400>7 or a derivative, homologue or mimetic thereof or having at least about 45% or greater similarity to at least 10 contiguous amino acids in <400>7.

11. An isolated nucleic acid molecule or derivative, homologue or analogue thereof comprising a nucleotide sequence substantially as set forth in one of <400>5 or <400>6 or a derivative or homologue thereof capable of hybridising to one of <400>5 or <400>6 under low stringency conditions.

12. An isolated nucleic acid molecule according to claim 11 which further encodes an amino acid sequence corresponding to an amino acid sequence set forth in <400>7 or a sequence having at least about 45% similarity to at least 10 contiguous amino acids in <400>7.

13. An isolated nucleic acid molecule according to claim 10 or 11 substantially as set forth in <400>5 or <400>6.

14. An isolated protein or derivative, homologue, analogue, chemical equivalent or mimetic thereof wherein said protein is ELF5 which ELF5 comprises an Ets domain.

15. An isolated protein comprising an amino acid sequence substantially as set forth in <400>2 or a derivative, homologue or mimetic thereof or a sequence having at least about 45% similarity to at least 10 contiguous amino acids in <400>2 or a derivative, homologue, analogue, chemical equivalent or mimetic or said protein.

16. An isolated protein according to claim 15 encoded by a nucleotide sequence substantially as set forth in <400>1 or a derivative, homologue or analogue thereof or capable of hybridising to <400>1 under low stringency conditions or a derivative, homologue, analogue, chemical equivalent or mimetic of said protein.

17. An isolated protein according to claim 15 or 16 substantially as set forth in <400>2.

18. An isolated protein having an amino acid sequence substantially as set forth in <400>4 or a derivative, homologue or mimetic thereof or a sequence having at least about 45% similarity to at least 10 contiguous amino acids in <400>4 or a derivative, homologue, analogue, chemical equivalent or mimetic of said protein.

19. An isolated protein according to claim 18 encoded by a nucleotide sequence substantially as set forth in <400>3 or a derivative, homologue or mimetic thereof or capable of hybridising to <400>3 under low stringency conditions or a derivative, homologue, analogue, chemical equivalent or mimetic of said protein.

20. An isolated protein according to claim 18 or 19 substantially as set forth in <400>4.

21. An isolated protein comprising an amino acid sequence substantially as set forth in <400>7 or a derivative, homologue or mimetic thereof or a sequence having at least about 45% similarity to at least 10 contiguous amino acids in <400>7 or a derivative, homologue, analogue, chemical equivalent or mimetic of said protein.

22. An isolated protein according to claim 21 encoded by a nucleotide sequence substantially as set forth in one of <400>5 or <400>6 or a derivative, homologue or mimetic thereof or capable of hybridising to one of <400>5 or <400>6 under low stringency conditions or a derivative, homologue, analogue, chemical equivalent or mimetic of said protein.

23. An isolated protein according to claim 21 or 22 substantially as set forth in <400>7.

24. An isolated protein according to any one of claims 18-23 which protein is a homodimer.

25. An isolated protein according to any one of claims 18-23 which protein is a heterodimer.

26. A method of modulating expression of *ELF5* in a mammal, said method comprising contacting the *ELF5* gene with an effective amount of an agent for a time and under conditions sufficient to modulate expression of *ELF5*.

27. A method of modulating the functional activity of *ELF5* in a mammal, said method comprising administering to said mammal a modulating effective amount of an agent for a time and under conditions sufficient to increase or decrease the *ELF5* activity.

28. A method of modulating cellular functional activity in a mammal said method comprising administering to said mammal an effective amount of an agent for a time and under conditions sufficient to modulate the expression of *ELF5* or sufficient to modulate the activity of *ELF5*.

29. A method of modulating cellular functional activity in a mammal said method comprising administering to said mammal an effective amount of a protein according to any one of claims 18-25 or a derivative, homologue, analogue, chemical equivalent or

mimetic thereof for a time and under conditions sufficient to modulate the functional activity of said cell.

30. A method of modulating cellular functional activity in a mammal said method comprising administering to said mammal an effective amount of a nucleic acid molecule according to any one of claims 1-17 or a derivative, homologue, analogue, chemical equivalent or mimetic thereof for a time and under conditions sufficient to modulate the functional activity of said cell.

31. A method of modulating cellular functional activity in a mammal said method comprising administering to said mammal an effective amount of an agent for a time and under conditions sufficient to modulate the expression of *ELF5* or sufficient to modulate the activity of *ELF5* wherein said *ELF5* expression product or *ELF5* modulates the activity of said cell.

32. A method according to any one of claims 28-31 wherein said functional activity is proliferation.

33. A method according to claim 32 wherein said cell is a neoplastic epithelial cell said modulation is down-regulation.

34. A method according to claim 33 wherein said neoplastic epithelial cell is of breast, prostate or lung origin.

35. A method for the treatment and/or prophylaxis of a condition characterised by the aberrant, unwanted or otherwise inappropriate cellular functional activity in a mammal of treating a mammal said method comprising administering to said mammal an effective amount of an agent for a time and under conditions sufficient to modulate the expression of *ELF5* wherein said modulation results in modulation of cellular functional activity.

36. A method for the treatment and/or prophylaxis of a condition characterised by the aberrant, unwanted or otherwise inappropriate cellular functional activity in a mammal said method comprising administering to said mammal an effective amount of an agent for a time and under conditions sufficient to modulate the activity of ELF5 wherein said modulation results in modulation of cellular functional activity.

37. A method for the treatment and/or prophylaxis of a condition characterised by the aberrant, unwanted or otherwise inappropriate cellular functional activity in a mammal said method comprising administering to said mammal an effective amount of a protein according to any one of claims 18-25 or a derivative, homologue, analogue, chemical equivalent or mimetic thereof for a time and under conditions sufficient to modulate cellular functional activity.

38. A method for the treatment and/or prophylaxis of a condition characterised by the aberrant, unwanted or otherwise inappropriate cellular functional activity in a mammal said method comprising administering to said mammal an effective amount of a nucleic acid molecule according to any one of claims 1-17 or a derivative, homologue, analogue, chemical equivalent or mimetic thereof for a time and under conditions sufficient to modulate cellular functional activity.

39. A method of treating a mammal according to any one of claims 32-35 wherein said condition is an epithelial cell malignancy.

40. A method according to claim 39 wherein said malignant epithelial cell is of breast, prostate or lung origin.

41. A method according to claim 39 or 40 wherein said functional activity is proliferation and said modulation is down-regulation.

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42. Use of an agent capable of modulating the expression of *ELF5* or a derivative, homologue, analogue, chemical equivalent or mimetic thereof in the manufacture of a medicament for the modulation of cellular functional activity.

43. Use of an agent capable of modulating the activity of *ELF5* or a derivative, homologue, analogue, chemical equivalent or mimetic thereof in the manufacture of a medicament for the modulation of cellular functional activity.

44. Use of *ELF5* or *ELF5* or a derivative, homologue, analogue, chemical equivalent or mimetic thereof in the manufacture of a medicament for the modulation of cellular functional activity.

45. Use according to any one of claims 42-44 wherein said cell is a malignant epithelial cell.

46. Use according to claim 45 wherein said functional activity is proliferation and said modulation is down-regulation.

47. An agent for use in modulating *ELF5* activity or a derivative, homologue, analogue chemical equivalent or mimetic thereof wherein modulating said *ELF5* activity modulates cellular functional activity.

48. An agent for use in modulating *ELF5* expression or a derivative, homologue, analogue, chemical equivalent or mimetic thereof wherein modulating expression of said *ELF5* modulates cellular functional activity.

49. *ELF5* or *ELF5* or a derivative, homologue, analogue, chemical equivalent or mimetic thereof for use in modulating cellular functional activity.

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50. A pharmaceutical composition comprising *ELF5*, *ELF5* or an agent capable of modulating *ELF5* expression or *ELF5* activity or derivative, homologue, analogue, chemical equivalent or mimetic thereof together with one or more pharmaceutically acceptable carriers and/or diluents.

51. An isolated antibody directed to the protein according to any one of claims 18-25.

52. An isolated antibody directed to the nucleic acid molecule according to any one of claims 1-17.

53. The antibody according to claim 51 or 52 wherein said antibody is a monoclonal antibody.

54. The antibody according to claim 51 or 52 wherein said antibody is a polyclonal antibody.

55. A method of diagnosing or monitoring a mammalian disease condition, which disease condition is characterised by aberrant cellular functional activity, said method comprising screening for *ELF5* or *ELF5* in a biological sample isolated from said mammal.

56. A method for detecting an agent capable of modulating the function of *ELF5* or its functional equivalent or derivative thereof said method comprising contacting a cell or extract thereof containing said *ELF5* or its functional equivalent or derivative with a putative agent and detecting an altered expression phenotype associated with said *ELF5* or its functional equivalent or derivative.

57. A method for detecting an agent capable of modulating the function of *ELF5* or its functional equivalent or derivative thereof said method comprising contacting an epithelial cell containing said *ELF5* or its functional equivalent or derivative with a putative agent and detecting an altered proliferation rate.

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58. A method for detecting an agent capable of binding or otherwise associating with an ELF5 binding site or functional equivalent or derivative thereof said method comprising contacting a cell containing said ELF5 binding site or functional equivalent or derivative thereof with a putative agent and detecting an altered expression phenotype associated with modulation of the function of ELF5 or its functional equivalent or derivative.

